

## Sequence Listing

	<110>	KIM, Doo-Sik	
		KWON, Hyung-Joo	
5		KIM, Tae-Yoon	
	<120>	Therapeutic use of CpG oligodeoxynucleotide for skin disease	
	<130>	OP05-1057	
10	<150>	KR 10-2004-0090000	
	<151>	2004-11-05	
	<160>	34	
15	<170>	KopatentIn 1.71	
	<210>	1	
	<211>	20	
20	<212>	DNA	
	<213>	Artificial Sequence	
	<220>		
	<223>	CpG ODN	
25			
	<400>	1	
		syysacgtt snyrawmytc	20
30			
	<210>	2	
	<211>	20	
	<212>	DNA	
	<213>	Artificial Sequence	
35			
	<220>		
	<223>	oligo-4 CpG ODN	

	<400>	2		
	ctcgcacgtt gccgaacttc		20	
5	<210>	3		
	<211>	20		
	<212>	DNA		
	<213>	Artificial Sequence		
10	<220>			
	<223>	oligo-4-3 CpG ODN		
15	<400>	3		
	ctcgcacgtt gctgaacttc		20	
20	<210>	4		
	<211>	20		
	<212>	DNA		
	<213>	Artificial Sequence		
	<220>			
25	<223>	oligo-4-4 CpG ODN		
30	<400>	4		
	ctcgcacgtt gccaaacttc		20	
	<210>	5		
	<211>	20		
	<212>	DNA		
35	<213>	Artificial Sequence		
	<220>			
	<223>	oligo-4-8 CpG ODN		
40				

	<400>	5		
		ctcgcacgtt gacgaacttc		20
5	<210>	6		
	<211>	20		
	<212>	DNA		
	<213>	Artificial Sequence		
10	<220>			
	<223>	oligo-4-9 CpG ODN		
	<400>	6		
15		ctcgcacgtt gtcgaacttc		20
	<210>	7		
	<211>	20		
20	<212>	DNA		
	<213>	Artificial Sequence		
	<220>			
	<223>	oligo-4-10 CpG ODN		
25				
	<400>	7		
		ctcgcacgtt cgcgaacttc		20
30				
	<210>	8		
	<211>	20		
	<212>	DNA		
	<213>	Artificial Sequence		
35	<220>			
	<223>	oligo-4-11 CpG ODN		
40	<400>	8		

		gctcgacgtt ggcgatactc	20
	<210>	9	
5	<211>	20	
	<212>	DNA	
	<213>	Artificial Sequence	
	<220>		
10	<223>	oligo-4-1 CpG ODN	
	<400>	9	
		ctcgacatt gccgaactc	20
15			
	<210>	10	
	<211>	20	
	<212>	DNA	
20	<213>	Artificial Sequence	
	<220>		
	<223>	oligo-4-2 CpG ODN	
25			
	<400>	10	
		ctcgacttt gccgaactc	20
30			
	<210>	11	
	<211>	20	
	<212>	DNA	
	<213>	Artificial Sequence	
35	<220>		
	<223>	oligo-4-5 CpG ODN	
	<400>	11	
40		ctcgacgaa gccgaactc	20

	<210>	12	
	<211>	20	
5	<212>	DNA	
	<213>	Artificial Sequence	
	<220>		
10	<223>	oligo-4-6 CpG ODN	
	<400>	12	
		ctcgcacgcc gccgaacttc	20
15	<210>	13	
	<211>	20	
	<212>	DNA	
	<213>	Artificial Sequence	
20	<220>		
	<223>	oligo-4-7 CpG ODN	
25	<400>	13	
		ctcgcacggg gccgaacttc	20
	<210>	14	
30	<211>	27	
	<212>	DNA	
	<213>	Artificial Sequence	
	<220>		
35	<223>	forward primer for IL-8 promoter	
	<400>	14	
40		gtgagatctg aagtgtgatg actcagg	27

	<210>	15	
	<211>	27	
	<212>	DNA	
5	<213>	Artificial Sequence	
	<220>		
	<223>	reverse primer for IL-8 promoter	
10			
	<400>	15	
		gtgaagcttg aagcttgtgt gctctgc	27
15	<210>	16	
	<211>	25	
	<212>	DNA	
	<213>	Artificial Sequence	
20	<220>		
	<223>	forward primer for IL-12 promoter	
	<400>	16	
25		catgagctca gctcccgctc tgacc	25
	<210>	17	
	<211>	25	
30	<212>	DNA	
	<213>	Artificial Sequence	
	<220>		
	<223>	reverse primer for IL-12 promoter	
35			
	<400>	17	
		ctgggctcga gggagagtcc aatgg	25
40			

	<210>	18	
	<211>	20	
	<212>	DNA	
	<213>	Artificial Sequence	
5	<220>		
	<223>	1826 CpG ODN	
10	<400>	18	
	tccatgacgt tcctgacgtt		20
	<210>	19	
15	<211>	24	
	<212>	DNA	
	<213>	Artificial Sequence	
	<220>		
20	<223>	2006 CpG ODN	
	<400>	19	
	tcgtcgtttt gtcgttttgt cgtt		24
25			
	<210>	20	
	<211>	24	
	<212>	DNA	
30	<213>	Artificial Sequence	
	<220>		
	<223>	2041 ODN(non-CpG ODN)	
35			
	<400>	20	
	ctggtctttc tggtttttt ctgg		24
40	<210>	21	

	<211>	20	
	<212>	DNA	
	<213>	Artificial Sequence	
5	<220>		
	<223>	forward primer for TNF-alpha	
	<400>	21	
10	tctcatcagt tctatggccc		20
	<210>	22	
	<211>	20	
15	<212>	DNA	
	<213>	Artificial Sequence	
	<220>		
	<223>	reverse primer for TNF-alpha	
20			
	<400>	22	
	gggagtagac aaggtacaac		20
25			
	<210>	23	
	<211>	22	
	<212>	DNA	
	<213>	Artificial Sequence	
30			
	<220>		
	<223>	forward primer for MIP-2	
35	<400>	23	
	tgggtgggat gtagctagtt cc		22
	<210>	24	
40	<211>	22	



	<212>	DNA	
	<213>	Artificial Sequence	
	<220>		
5	<223>	reverse primer for MIP-2	
	<400>	24	
10		agtttgcctt gaccctgaag cc	22
	<210>	25	
	<211>	20	
	<212>	DNA	
15	<213>	Artificial Sequence	
	<220>		
	<223>	forward primer for IL-1	
20	<400>	25	
		ttgacggacc ccaaaagatg	20
25	<210>	26	
	<211>	20	
	<212>	DNA	
	<213>	Artificial Sequence	
30	<220>		
	<223>	reverse primer for IL-1	
	<400>	26	
35		agaagtgct catgtectca	20
	<210>	27	
	<211>	20	
40	<212>	DNA	

	<213>	Artificial Sequence	
	<220>		
	<223>	forward primer for IL-6	
5			
	<400>	27	
		gttctctggg aaatcgtgga	20
10			
	<210>	28	
	<211>	20	
	<212>	DNA	
	<213>	Artificial Sequence	
15			
	<220>		
	<223>	reverse primer for IL-6	
20			
	<400>	28	
		tgtactccag gtagctatgg	20
25			
	<210>	29	
	<211>	20	
	<212>	DNA	
	<213>	Artificial Sequence	
30			
	<220>		
	<223>	forward primer for IL-10	
35			
	<400>	29	
		atgcaggact ttaagggtta	20
40			
	<210>	30	
	<211>	28	
	<212>	DNA	
	<213>	Artificial Sequence	

<220>  
 <223> reverse primer for IL-10

5  
 <400> 30  
 atttcggaga gaggtagaaa cgaccttt 28

10 <210> 31  
 <211> 26  
 <212> DNA  
 <213> Artificial Sequence

15 <220>  
 <223> forward primer for GM-CSF

<400> 31  
 20 atgtggctgc agaatttact ttctct 26

<210> 32  
 <211> 25  
 25 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> reverse primer for GM-CSF  
 30

<400> 32  
 tgggcttcct cattttggc ctggt 25

35 <210> 33  
 <211> 19  
 <212> DNA  
 <213> Artificial Sequence  
 40

	<220>		
	<223>	forward primer for IL-12	
5	<400>	33	
		ctgggtgcaaa gaaacatgg	19
	<210>	34	
10	<211>	20	
	<212>	DNA	
	<213>	Artificial Sequence	
	<220>		
15	<223>	reverse primer for IL-12	
	<400>	34	
		tggtttgatg atgtccctga	20
20			